U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

TRANMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371

ATTORNEY'S DOCKET NUMBER: NIGON=1

U.S. APPLICATION NO. (If known, see 37 CFR 1.5): 10/018083

INTERNATIONAL APPLICATION NO.	INTERNATIONAL FILING DATE	PRIORITY CLAIMED
PCT/FR00/01624	13 June 2000	14 June 1999

TITLE OF INVENTION: KIT FOR REMOVING A BLOOD VESSEL FILTER

APPLICANT(S) FOR DO/EO/US: **Alain NIGON**

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. [X] This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. [ ] This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. [X] This is an express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. [X] The US has been elected in a Demand by the expiration of 19 months from the priority date (PCT Article 31).
5. [X] A copy of the International Application as filed (35 U.S.C. 371(c)(2))
   a. [ ] is attached hereto (required only if not transmitted by the International Bureau).
   b. [X] has been communicated by the International Bureau.
   c. [ ] is not required, as the application was filed in the United States Receiving Office (RO/US).
6. [X] An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
7. [X] Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
   a. [ ] are transmitted herewith (required only if not transmitted by the International Bureau).
   b. [ ] have been communicated by the International Bureau.
   c. [ ] have not been made; however, the time limit for making such amendments has NOT expired.
   d. [X] have not been made and will not be made.
8. [ ] An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. [ ] An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. [ ] An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern document(s) or information included:

11. [ ] An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. [ ] An Assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. [X] A FIRST preliminary amendment.
    [ ] A SECOND or SUBSEQUENT preliminary amendment.
14. [ ] A substitute specification.
15. [ ] A change of power of attorney and/or address letter.
16. [X] Other items or information:
    [X] Courtesy copy of the first page of the International Publication (WO 00/76422)
    [X] Formal drawings, 3 sheets, Figures 1-4.
    [X] Courtesy Copy of the International Search Report.
    [X] Application Data Sheet
    [X] The application is (or will be) assigned to: ALN, whose address is Route de la Gare, F-20240, Ghisonaccia, France.

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)	International Application No.	Attorney's Docket No.
10/018083	PCT/FR00/01624	NIGON=1

17. [xx] The following fees are submitted:

BASIC NATIONAL FEE (37 CFR 1.492 (a)(1) –(5):

Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO.....**$1040.00**

International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO.....**$890.00**

International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO.....**$740.00**

International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4).....**$710.00**

International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1)-(4).....**$100.00**

CALCULATIONS PTO USE ONLY

ENTER APPROPRIATE BASIC FEE AMOUNT =				$ 890.00	
Surcharge of **$130.00** for furnishing the oath or declaration later than [ ] 20 [X] 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				$ 130.00	
Claims as Originally Presented	Number Filed	Number Extra	Rate		
Total Claims	12 - 20		X $18.00	$	
Independent Claims	1 - 3		X $84.00	$	
Multiple Dependent Claims (if applicable)			+$280.00	$ 280.00	
TOTAL OF ABOVE CALCULATIONS =				$1,300.00	
Claims After Post Filing Prel. Amend	Number Filed	Number Extra	Rate		
Total Claims	- 20		X $18.00	$	
Independent Claims	- 3		X $84.00	$	
TOTAL OF ABOVE CALCULATIONS =				$1,300.00	
Reduction of ½ for filing by small entity, if applicable. Applicant claims small entity status. See 37 CFR 1.27.				$ 650.00	
SUBTOTAL =				$ 650.00	
Processing fee of **$130.00** for furnishing the English translation later than [ ] 20 [ ] 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				$	
TOTAL NATIONAL FEE =				$ 650.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). **$40.00** per property +				$	
TOTAL FEES ENCLOSED =				$ 650.00	
				Amount to be: refunded	$
				charged	$

a. [ ] A check in the amount of $_____ to cover the above fees is enclosed.

b. [X] Credit Card Payment Form (PTO-2038), authorizing payment in the amount of $ 650.00, is attached.

c. [ ] Please charge my Deposit Account No. **02-4035** in the amount of $_____ to cover the above fees. A duplicate copy of this sheet is enclosed.

d. [**XX**] The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. **02-4035**. A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

BROWDY AND NEIMARK, P.L.L.C.
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Date of this submission: **December 14, 2001**

SIGNATURE

Roger L. Browdy
NAME

25,618
REGISTRATION NUMBER

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APPLICATION INFORMATION

Title Line One:: KIT FOR REMOVING A BLOOD VESSEL FILTER
Total Drawing Sheets:: 3
Formal Drawings?:: Yes
Docket Number:: NIGON=1
Secrecy Order in Parent Appl.?:: No

REPRESENTATIVE INFORMATION

Representative Customer Number:: 1444

CONTINUITY INFORMATION

This application is a:: 371 OF
> Application One:: PCT/FR00/01624
Filing Date:: 06-13-2000

PRIOR FOREIGN APPLICATIONS

Foreign Application One:: 99/07690
Filing Date:: 06-14-1999
Country:: France
Priority Claimed:: Yes

Source:: PrintEFS Version 1.0.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Alain NIGON	)	Art Unit:
IA No.: PCT/FR00/01624	)	Washington, D.C.
IA Filed: June 13, 2000	)	
U.S. App. No.: (Not Yet Assigned)	)	December 14, 2001
National Filing Date: (Not Yet Received)	)	
For: KIT FOR REMOVING A BLOOD...	)	Docket No.: NIGON=1

PRELIMINARY AMENDMENT

Honorable Commissioner for Patents and Trademarks
Washington, D.C. 20231

Sir:

Contemporaneous with the filing of this case, kindly amend as follows:

IN THE SPECIFICATION

After the title please insert the following paragraph:

-**REFERENCE TO RELATED APPLICATIONS**

The present application is the national stage under 35 U.S.C. 371 of international application PCT/FR00/01624, filed which designated the United States, and which international application was not published under PCT Article 21(2) in the English language.--

In re of: Alain NIGON (NIGON=1)

REMARKS

The above amendment to the specification is being made to insert reference to the PCT application of which the present case is a U.S. national stage.

Favorable consideration is earnestly solicited.

Respectfully submitted,
BROWDY AND NEIMARK, P.L.L.C.
Attorneys for Applicant

By: _____
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Atty.'s Docket: NIGON=1

In re Application of:	)	PCT BRANCH
	)	
Alain NIGON	)	Examiner:
	)	
I.A. Appln. #: PCT/FR00/01624	)	Washington, D.C.
I.A. Filing Date: 13 JUNE 2000	)	
Nationalized Date: 12/14/2001	)	January 4, 2002
	)	
For: KIT FOR REMOVING A BLOOD VESSEL FILTER	)	

SECOND PRELIMINARY AMENDMENT

Honorable Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination on the merits of the above-identified application, please amend as follows:

IN THE CLAIMS

Please amend the claims by rewriting claims 7-9 in amended form as follows (attached hereto is a marked-up version of the changes made to the claims captioned "Version with Markings to Show Changes Made"):

7. (Amended) A kit according to claim 1, characterized in that the length of the catheters ranges from 40 to 80 cm.

8. (Amended) A kit according to claim 1, characterized in that the inside diameter of the catheters

ranges from 4.7 mm to 2.3 mm for the external catheter and from 4.0 mm to 1.67 mm for the second catheter.

9. (Amended) A kit according to claim 5, characterized in that the device that is detectable from outside the body comprises a ring.

Add the following new claims:

10. (New) A kit according to claim 6, characterized in that the length of the catheters ranges from 40 to 80 cm.

11. (New) A kit according to claim 10, characterized in that the inside diameter of the catheters ranges from 4.7 mm to 2.3 mm for the external catheter and from 4.0 mm to 1.67 mm for the second catheter.

12. (New) A kit according to claim 11, characterized in that the device that is detectable from outside the body comprises a ring that is radiopaque.

REMARKS

The above claim amendments are made to place the claims in better form consistent with U.S. practice, and especially to eliminate improper multi-dependencies so that the claims will be made consistent with 37 CFR 1.75(c) in order to insure examination of all claims. The amendments are

not "narrowing" amendments. The scope of the claims has not been reduced; no limitations have been added and none are intended.

Applicant respectfully awaits the results of a first examination on the merits.

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C.
Attorneys for Applicant(s)

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In re Docket No: NIGON=1

"Version with Markings to Show Changes Made"

7. (Amended) A kit according to ~~one of Claims 1 to 6~~claim 1, characterized in that the length of the catheters ranges from 40 to 80 cm.

8. (Amended) A kit according to ~~one of Claims 1 to 7~~claim 1, characterized in that the inside diameter of the catheters ranges from 4.7 mm to 2.3 mm for the external catheter and from 4.0 mm to 1.67 mm for the second catheter.

9. (Amended) A kit according to ~~one of Claims 5 to 8~~claim 5, characterized in that the device that is detectable from outside the body comprises a ring ~~that is for example radiopaque~~.

3/pats

Kit for the withdrawal of a blood vessel filter

The present invention relates to a kit for the withdrawal of a filter for blood vessels.

Two main types of filters for the inferior vena cava are known at present. It should be recalled that a filter for the inferior vena cava is a device consisting of metallic strands resembling the frame of a half-open umbrella but having only the ribs and the bosshead of the latter, which is installed in the inferior vena cava. The metallic strands are provided with hooks at their free end, enabling them to cling to the vessel wall.

These metallic strands are thin and flexible and they therefore beat in rhythm with the peristaltic movements of the inferior vena cava. These movements, which cause the metallic strands to come closer and move away alternately, make it possible, when the umbrella filter blocks a clot, for the latter to be sheared progressively into small pieces that can no longer be harmful.

The first type of filter is the permanent type: in this case an umbrella filter is installed above in the inferior vena cava, and is left there permanently. The medical profession is always reluctant to leave a foreign body in the human body permanently.

Temporary filters are also known. In this case a filter is fitted to the end of a catheter which is left in place and is withdrawn when the time comes. However, the catheter can cause adhesions, which tear the vessel wall on withdrawal. Furthermore, being about fifty centimetres long, the catheter must remain partially outside of the body, and so is a source of infection. That is why patients fitted with a temporary device are maintained under strict hygiene and receive permanent antibiotic-based medication.

It would therefore be desirable to be able to install, in the inferior vena cava and in other vessels, an umbrella filter of the permanent type, i.e. of the type where the metallic strands have a hook at their free end, but which can nevertheless be removed.

Now, after much research, the applicant discovered that a kit comprising a catheter and a stem ending in hooked flexible legs made it possible to grasp umbrella filters of the permanent type and compress their strands so as to unhook them from the vessel wall without damaging the latter.

Accordingly, the present application relates to a kit for the withdrawal of a blood vessel filter of the umbrella type formed from a bush serving as a retaining sleeve for a number of flexible strands that spread apart naturally and end in hooks directed outwards so that they lock onto the vessel wall, characterized in that it comprises

- a first, "external" catheter
- a stem that can be inserted in the external catheter and having at one of its ends a number of flexible legs which open out from the stem, spread apart naturally and ending in hooks directed inwards for gripping the bush of the filter as they close up.

It is thus possible to close up the legs mounted at the end of the stem, by pushing the stem, to insert them into the first catheter until they are near the end of the said first catheter, to advance the assembly until it is near the bush of the filter and to advance the stem to make the legs come out and thus allow them to open out. It then only remains to advance the first catheter in its turn so as to close the legs back onto the bush and thus grasp it, again advance the first catheter to close the filter strands again, taking them into the filter, then pull the stem for extracting the filter, possibly at the same time as the first catheter.

Although a device of this kind already proves satisfactory, in preferred conditions of application, the above kit is characterized in that it comprises, in addition, a second catheter, of a diameter such that it can be introduced into the external catheter.

Thus, the stem and its closed-up flexible legs can be installed in the said second catheter from the outset, making it unnecessary, in particular, for the legs mounted at the end of the stem to be closed up again at the time of use. The stem, pre-installed in the second catheter, can be packed separately with the latter in a second sterile pack.

Accordingly, the present application also relates to a kit as above, characterized in that the stem that can be inserted in the external catheter and that has a number of flexible legs at one of its ends, has a length that is greater than that of the second catheter and, before it is used for gripping the bush of the filter, it is installed in the second catheter in order to keep the said flexible strands of the stem closed up.

The introduction of a hollow catheter, even if chamfered, into blood vessels is not easy to execute without risk of injury.

Therefore the present application also relates to a kit as above, characterized in that it additionally comprises a third catheter, of suitable diameter for introduction into the external catheter, the leading end of which is closed and chamfered to serve as a dilator during introduction of the assembly, consisting of the first and the said third catheter, into a vessel.

To the extent that the third catheter is to serve as a dilator, it will be understood that its length is greater than that of the first catheter and therefore it will go past the end of the said first catheter during introduction into vessels. The outside diameter of the third catheter is preferably adjusted to the inside diameter of the first catheter as a sliding fit.

Polyethylene is preferably used as the material for making the catheters.

The stem and its hooked legs will preferably be made of stainless steel. Its handle, if it has one, could also be made of polyethylene for example.

The length of the catheters can range for example from 20 to 100 cm, preferably from 30 to 90 cm, especially from 40 to 80 cm, and quite particularly from 45 to 60 cm.

The inside diameter of the catheters can range for example from 4.7 mm to 2.3 mm, preferably from 4.3 to 2.7 mm, more particularly from 3.3 to 2.7 mm for the external catheter and for example from 4.0 mm to 1.67 mm, especially 3.3 mm to 2 mm, and in particular from 2.7 to 2 mm for the second catheter. In particular, a diameter 9F will be used for the first catheter and a diameter 7F for the second catheter. Note that diameters of 9F and 7F correspond to 3.0 and 2.3 mm respectively.

Under preferred conditions of application of the kit described above, the third catheter includes at least one device that can be detected from outside the body, located near its front end. Thus, it is possible to follow the progress of the assembly towards the filter.

The device detectable from outside the body could be, for example, a ring, especially radiopaque, fitted or inserted on or in a catheter, preferably of stainless steel, especially of gold, and quite particularly of platinum-iridium. It can also be a spot or dot, or the entire catheter could be radiopaque.

Under other preferred conditions of application of the kit described above, the device that is detectable from outside the body can be detected by the same detection device as that used for the bush of the filter. Thus, one and the same detector, for example using radioscopy, makes it possible to locate the filter and its bush in the body, and monitor the passage of the catheters towards them.

The kit according to the invention, in its most elaborate version employing, in addition to the stem, two hollow catheters and a dilator catheter, can be used as follows, in the case of an inferior vena cava:

The right jugular vein is punctured using a puncturing needle. A Teflon®-coated J-shaped guide is passed down with the aid of a stiffener until it is 5 cm above the filter to be extracted, following its progress by radioscopy. The puncturing needle is withdrawn. The assembly of the first and third catheters is made to slide along the J-shaped guide as far as its distal part, following its progress by radioscopy on account of a radiopaque ring. The J-shaped guide and the third catheter are withdrawn simultaneously under frontal and especially profile radioscopy. A wedge is fitted between the handle of the stem ending in hooked flexible legs and the entry point of the second catheter to prevent inadvertently pushing the stem back and opening the vulsella forceps like an umbrella. The second catheter, with the stem inside, is introduced, making sure that it does not go down beyond the reserved 5 cm and continuing to monitor the entire manipulation by radioscopy. Then the wedge is removed and the stem is advanced slightly to open the vulsella forceps. Once the recovery hooks are open, go down slowly to above the bush of the filter to be recovered. Make sure that the hooks are positioned sufficiently beneath the bush. At this point of the procedure, slowly slide the first catheter over the hooks at the end of the stem. Block by refitting the wedge or a wedge that is somewhat shorter. Still under radioscopy, ensure that the hooks of the forceps are properly closed under the bush of the filter and are well centred. Continue to move the first catheter down slowly beyond the bush of the filter, so as to fold its strands inwards. Make sure that the hooks of the filter are properly unhooked from the vessel wall. With a slow withdrawing movement, withdraw the stem and the filter which it has gripped, making sure that the filter has been drawn into the second catheter completely. Bring out the assembly of the first and second catheter with the stem and the filter. Then provide haemostasis at the puncture point.

The invention will be better understood by referring to the appended drawings, in which

- Figure 1 shows a side view of a first, so-called "external" catheter according to the invention,

- Figure 2 shows a side view of a second catheter according to the invention with a stem positioned for grasping the bush of a filter,

- Figure 3 shows a side view of a third catheter according to the invention that serves as a dilator,

- Figure 4 shows a blood vessel filter of the umbrella type.

In Figure 1 we can see a first catheter 1, called "external", consisting of a hollow tube 2 of polyethylene with inside diameter 9F (3.0 mm) provided with a chamfered front end 3. The rear end is provided with a wider part 4 to facilitate its manipulation, and ends in a flange 5. If desired, the front end 3 is provided with an annular radiopaque zone that can be detected from outside the body. Its length L_1 is 550 mm.

Figure 2 shows a second catheter 11. This second catheter has the same general configuration as the first catheter. Thus, it is provided with a chamfered front end 13. The rear end is provided with a wider part 14 ending in a flange 15. Its length L_2 is 553 mm and its inside diameter is 7F (2.3 mm) so that it can be inserted in the first catheter 1.

A stem is installed in position for grasping the bush of a filter. It has a manipulating handle 16 of polyethylene moulded on stem 17 proper, made of stainless steel. At the other end there is a number of flexible legs 18, also of stainless steel, secured to stem 17 by means of a sheath 19. These flexible legs 18 end in hooks 20 directed inwards for grasping the bush of the filter when they are closed up. They open out from stem 17, and they spread apart naturally if no force is applied to them. It will be understood that if the first catheter 1 is caused to advance towards the end of the stem, the legs 18 will be closed again, bringing the hooks 20 closer together. It is in this position with the legs closed up that the assembly of the second catheter 11 and the stem can be introduced into the first catheter 1.

In Figure 3 we can see a third catheter 21 serving as a dilator. This third catheter 21 has to some extent the same general configuration as the first and second catheters. Thus, it has a rear end that is provided with a wider part 14 ending in a flange 25. Its front end 23 is chamfered but has a slightly conical shape and in particular it is closed. Its length L_3 is 605 mm and its inside diameter is 7F so that it can be inserted in the first catheter 1. This third catheter 21 is provided with two radiopaque annular zones that can be detected from outside the body using X-rays, one 26 near the chamfered front end and the other 27 at a distance of 560 mm from its rear end.

The third dilator catheter 21 is firstly installed in the first "external" catheter 1, the assembly is introduced into the vascular system as far as the filter, and

secondly the third catheter 21, which is no longer of use, is replaced by the second catheter 11 containing the stem, grasping the filter and removing it, on withdrawing the stem, the second catheter 11 and the first catheter 1.

Figure 4 shows a filter that can be removed from the vascular system by means of a kit according to the invention. It comprises a bush 31 serving as a retaining sleeve for a number of flexible strands 32 which spread apart naturally and end in hooks 33 directed outwards so that they lock against and in the wall of a vessel. The end of each strand constituting the hook 33 forms an angle from 91 to 95°, or even more, relative to the strand 32 so that it can be removed without causing damage. The rim formed by bush 31 among strands 32 enables it to be gripped by hooks 20 of the stem.

CLAIMS

1. A kit for the withdrawal of a blood vessel filter of the umbrella type formed by a bush (31) serving as a retaining sleeve for a number of flexible strands (32) which spread apart naturally and end in hooks (33) directed outwards so that they lock onto the wall of a vessel, characterized in that it comprises

- a first, so-called "external" catheter (1),
- a stem that can be inserted in the external catheter and has, at one of its ends, a number of flexible legs (18) that open out from the stem, spreading apart naturally and ending in hooks (20) directed inwards for grasping the bush (31) of the filter as they close up again.

2. A kit according to Claim 1, characterized in that it comprises in addition a second catheter (11), with a diameter such that it can be introduced into the external catheter (1).

3. A kit according to Claim 2, characterized in that the stem that can be inserted in the external catheter (1) and with a number of flexible strands (18) at one of its ends, has a length that is greater than that of the second catheter (11) and, prior to its use for grasping the bush (31) of the filter, is installed in a second catheter (11) so that the said flexible strands (18) of the stem are kept closed up.

4. A kit according to one of Claims 2 and 3, characterized in that it additionally comprises a third catheter (21), of diameter suitable for introduction into the external catheter (1), the front end (23) of which is closed and chamfered for serving as a dilator during introduction of the assembly consisting of the first catheter (1) and the said third catheter (21) into a vessel.

5. A kit according to Claim 4, characterized in that the third catheter (21) includes at least one device (26) that is detectable from outside the body, located near its front end.

6. A kit according to Claim 5, characterized in that the device (26) that is detectable from outside the body can be detected by the same detecting device as the one that can be used for bush (31) of the filter.

7. A kit according to one of Claims 1 to 6, characterized in that the length of the catheters ranges from 40 to 80 cm.

8. A kit according to one of Claims 1 to 7, characterized in that the inside diameter of the catheters ranges from 4.7 mm to 2.3 mm for the external catheter and from 4.0 mm to 1.67 mm for the second catheter.

9. A kit according to one of Claims 5 to 8, characterized in that the device that is detectable from outside the body comprises a ring that is for example radiopaque.

TITLE OF THE INVENTION

Kit for the withdrawal of a blood vessel filter of the umbrella type

ABSTRACT

A kit for the withdrawal of a blood vessel filter of the umbrella type formed from a bush (31) serving as a sleeve for retaining a number of flexible strands (32) that spread apart naturally and end in hooks (33) directed outwards so that they lock onto the wall of a vessel, comprising

- a first so-called "external" catheter (1)
- a stem that can be inserted in the external catheter and has, at one of its ends, a number of flexible legs (18) that open out from the stem, spreading apart naturally and ending in hooks (20) directed inwards for grasping bush (31) of the filter as they close up again and preferably in addition a second catheter (11), of diameter such that it can be introduced into the external catheter (1).

Illustration for abstract: Figure 2

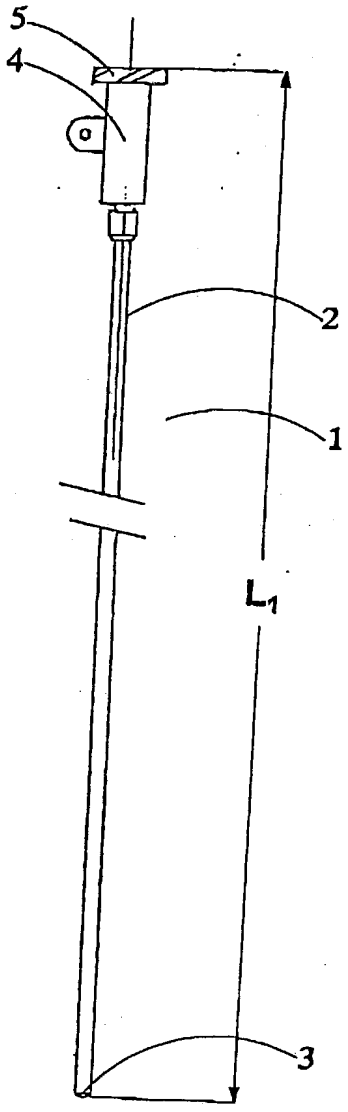

Fig. 1

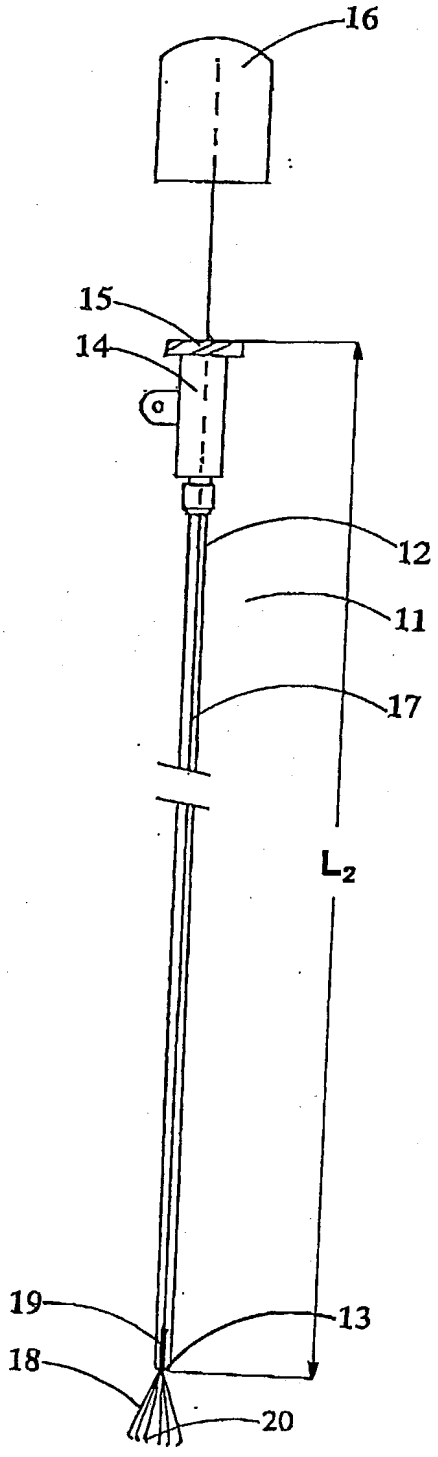

Fig. 2

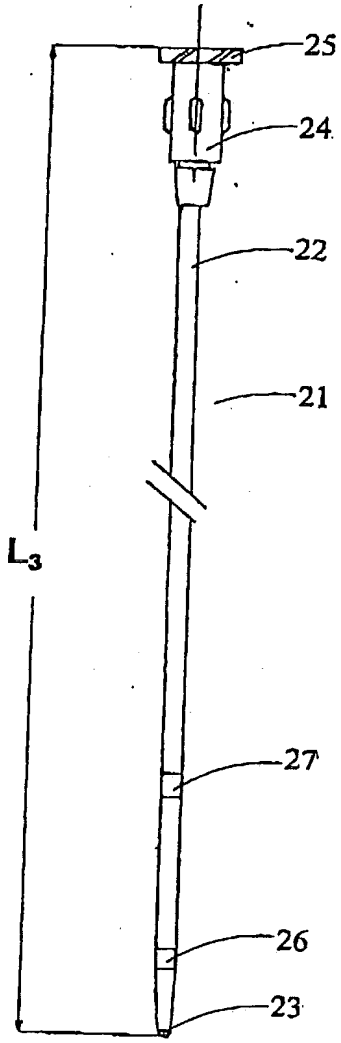

Fig. 3

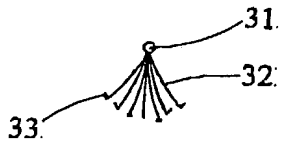

Fig. 4

Page 1 of 2 Pages [X] Original [ ] Substitute [ ] Supplemental Atty. Docket: NIGON=1

Combined Declaration for Patent Application and Power of Attorney

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name; and that I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

KIT FOR REMOVING A BLOOD VESSEL FILTER

the specification of which (check one)

[ ] is attached hereto;

[ ] was filed in the United States under 35 U.S.C. §111 on , as U.S. Appln. No. _____*; or

[X] was filed in the U.S. under 35 U.S.C. §371 by entry into the U.S. national stage of an international (PCT) application, PCT/FR00/01624; filed June 13, 2000, entry requested on December 14, 2001*; national stage application received U.S. Appln. No. _____*; §371/§102(e) date _____* (* if known)

and was amended on December 14, 2001 (if applicable).

(include dates of amendments under PCT Art. 19 and 34 if PCT)

I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above; and I acknowledge the duty to disclose to the Patent and Trademark Office (PTO) all information known by me to be material to patentability as defined in 37 C.F.R. §1.56.

I hereby claim foreign priority benefits under 35 U.S.C. §§ 119 (a)-(d) and 365 (b) of any prior foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or under §365(a) of any PCT application which designated at least one country other than the U.S., listed below:

Application No.	Country	Filing Date (MM/DD/YYYY)
99/07690	France	June 14, 1999

If I claimed foreign priority above, I hereby identify below any foreign application for patent (including an international (PCT) application designating a country other than the United States) or for an inventor's or plant breeder's certificate, having a filing date before that of the earliest application from which foreign priority is claimed (if left blank, then there are none):

Non-Priority Application No.	Country	Filing Date (MM/DD/YYYY)

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional applications listed below:

Application No.	Filing Date (MM/DD/YYYY)

I hereby claim the benefit under 35 U.S.C. §120 of any prior U.S. non-provisional application(s) or under §365(c) of any prior PCT international application(s) designating the U.S., listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in such U.S. or PCT international application in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose to the PTO all information which is material to patentability as defined in 37 C.F.R. §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Application No.	Filing Date (MM/DD/YYYY)	Status (patented, pending, abandoned)
PCT/FR00/01624	June 13, 2000	Pending

As a named inventor, I hereby appoint the following registered practitioners to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

All of the practitioners associated with Customer Number 001444

Direct all correspondence to the address associated with **Customer Number 001444**, which is presently:

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Page 2 of 2 Pages Atty. Docket: NIGON=1

Title: KIT FOR REMOVING A BLOOD VESSEL FILTER

U.S. Application filed December 14, 2001, Serial No. _____

PCT Application filed June 13, 2000, Serial No. PCT/FR00/01624

The undersigned hereby authorizes the U.S. Attorneys or Agents appointed herein to accept and follow instructions from RINUY, SANTARELLI as to any action to be taken in the U.S. Patent and Trademark Office regarding this application without direct communication between the U.S. Attorneys or Agents and the undersigned. In the event of a change of the persons from whom instructions may be taken, the U.S. Attorneys or Agents appointed herein will be so notified by the undersigned.

I hereby further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

FULL NAME OF FIRST INVENTOR	INVENTOR'S SIGNATURE	DATE
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FULL NAME OF SECOND JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
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FULL NAME OF THIRD JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
RESIDENCE		CITIZENSHIP
POST OFFICE ADDRESS		
FULL NAME OF FOURTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
RESIDENCE		CITIZENSHIP
POST OFFICE ADDRESS		
FULL NAME OF FIFTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
RESIDENCE		CITIZENSHIP
POST OFFICE ADDRESS		
FULL NAME OF SIXTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
RESIDENCE		CITIZENSHIP
POST OFFICE ADDRESS		

ALL INVENTORS MUST REVIEW APPLICATION AND DECLARATION BEFORE SIGNING. ALL ALTERATIONS MUST BE INITIALED AND DATED BY ALL INVENTORS PRIOR TO EXECUTION. NO ALTERATIONS CAN BE MADE AFTER THE DECLARATION IS SIGNED. ALL PAGES OF DECLARATION MUST BE SEEN BY ALL INVENTORS.